# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

| ROKU, INC.,                         | )                       |
|-------------------------------------|-------------------------|
| Plaintiff,                          | )                       |
| v.                                  | ) C.A. No. 21-1035 (MN) |
| ALMONDNET, INC. and INTENT IQ, LLC, | )<br>)<br>)             |
| Defendants.                         | )                       |

ROKU'S OPENING BRIEF IN SUPPORT OF ITS FED. R. CIV. P. 12(B)(6) MOTION TO DISMISS DEFENDANTS' INFRINGEMENT COUNTERCLAIMS ON U.S. PATENT NOS. 8,677,398, 10,715,878, 8,566,164, 8,595,069, AND 10,321,1981 AS BEING DIRECTED TO PATENT-INELIGIBLE SUBJECT MATTER UNDER 35 U.S.C. § 101

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<sup>&</sup>lt;sup>1</sup> Collectively, the "Targeted Advertising Patents."

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#### I. INTRODUCTION

For generations, companies have targeted advertisements to target audiences—toy ads during Saturday morning cartoons or beer and chip ads during the Super Bowl. Indeed, the Federal Circuit in multiple decisions has recognized that targeted advertising is an abstract (and not new) idea. Yet, AlmondNet<sup>2</sup> now asserts claims directed to that very idea. And there is nothing in the claims of the Targeted Advertising Patents that adds an inventive concept to the abstract idea of targeted advertising. Rather, they merely claim—sometimes in just a single step—targeted advertising systems and methods using conventional computer and networking equipment. *See* D.I. 12 at 9 (¶ 1) (AlmondNet's own characterization of the patents-in-suit as generally relating to "internet / network based advertising systems and methods"). That does not meet the baseline requirements of patent eligibility under 35 U.S.C. § 101, and therefore, Roku seeks dismissal of AlmondNet's Counterclaim Counts III–VI and IX of the Targeted Advertising Patents.

### II. NATURE AND STAGE OF THE PROCEEDING

On July 15, 2021, Roku filed this action seeking declaratory judgment of non-infringement of nine patents owned by AlmondNet. D.I. 1. On August 27, 2021, AlmondNet filed infringement counterclaims on those patents. D.I. 12 at 9-31. Roku moves to dismiss AlmondNet's infringement counterclaims on five of those patents: U.S. Patent Nos. 8,677,398 (D.I. 12-5, "the '398 Patent") and 10,715,878 (D.I. 12-7, "the '878 Patent") (the '398 and '878 Patents referred to as "the LAN Patents"); and U.S. Patent Nos. 8,566,164 (D.I. 12-9, "the '164 Patent"), 8,595,069 (D.I. 12-17, "the '069 Patent"), and 10,321,198 (D.I. 12-11, "the '198 Patent") (the '164, '069, and '198 Patents referred to as "the Set-Top Box Patents").

<sup>&</sup>lt;sup>2</sup> "AlmondNet" refers to AlmondNet, Inc. and Intent IQ, LLC.

#### III. SUMMARY OF THE ARGUMENT

Roku moves to dismiss AlmondNet Counterclaim Counts III ('398 Patent), IV ('878 Patent), V ('164 Patent), VI ('198 Patent), and IX ('069 Patent) because those five patents impermissibly claim only the abstract idea of targeted advertising, which the Federal Circuit has repeatedly found is not patent-eligible subject matter without something more than generic features and equipment. See, e.g., Free Stream Media Corp. v. Alphonso Inc., 996 F.3d 1355, 1358, 1366 (Fed. Cir. 2021) (ruling as ineligible under § 101 patent claims for "providing a mobile phone user with targeted information (i.e., advertisements) that is deemed relevant to the user based on data gathered from the user's television"); Customedia Techs., LLC v. Dish Network Corp., 951 F.3d 1359, 1362–63 (Fed. Cir. 2020); In re Morsa, 809 F. App'x 913, 916–917 (Fed. Cir. 2020); Bridge & Post, Inc. v. Verizon Commnc'ns, Inc., 778 F. App'x 882, 887, 891 (Fed. Cir. 2019); Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 715 (Fed. Cir. 2014); see also Affinity Labs of Texas, LLC v. Amazon.com, Inc., 838 F.3d 1266, 1271 (Fed. Cir. 2016) (""[C]ustomizing information based on . . . information known about the user' is an abstract idea.").

Here, the claims of the Targeted Advertising Patents recite small variations to the same abstract idea of directed targeted advertising to the desired viewer. The '398 Patent claims are directed to targeted advertising based on the abstract idea of causing an action with respect to a device based on an association between identifiers for two devices. In other words, the focus is on identifying or confirming it is the same user at two different devices and taking an action such as

<sup>&</sup>lt;sup>3</sup> See also OpenTV, Inc. v. Netflix Inc., 76 F. Supp. 3d 886, 894 (N.D. Cal. 2014) (even if limited to online context, "plaintiffs have not shown how the claims describe anything more than the abstract idea of attempting to provide as much appropriately-selected content to users as possible, based on predictions as to their online availability and other information gathered about them"); Morsa v. Facebook, Inc., 77 F. Supp. 3d 1007, 1014 (C.D. Cal. 2014 (claims drawn to two abstract ideas—targeted advertising and a bidding system to determine how ads are displayed—held abstract because they did not have any particular concrete or tangible form).

showing that user the desired ad. The claims of the '878 Patent are similarly directed to the abstract idea of using information to determine an association between two devices to identify a user and taking an action (like showing a desired ad) based on that association and user information. The claims of the '164 Patent are directed to the abstract idea of targeting an advertisement to one device after identifying the user interacting with different devices based on user profile information that includes an association between a set-top box identifier and an online access identifier. The claims of the '069 and '198 Patents are all directed to the abstract idea of targeting advertising by taking an action (*i.e.*, showing a particular advertisement) with respect to a device after receiving notification that an advertisement has been seen by the user on a set-top box.

Those abstract ideas are recited in a claimed generic environment—the claims of the Targeted Advertising Patents are limited to conventional computer elements and Internet operations and represent no inventive concept or improvement in computer functionality. Nothing in the claims transforms those abstract ideas into patent-eligible subject matter. *See, e.g., Free Stream*, 996 F.3d at 1364–65 (generic computing components do not transform the claim); *Bridge & Post*, 778 F. App'x at 891 (tracking users to display advertisements was known in the pre-Internet world and claimed steps for accomplishing it on the Internet were conventional); *see also VideoShare, LLC v. Google, Inc.*, No. 13-cv-990 (GMS), 2016 WL 4137524, \*\*8–10 (D. Del. Aug. 2, 2016) (ruling ineligible patents directed to streaming associated video content (including advertisements) where claims "merely recite conventional computer components or functions that involve the use of a computer network, such as the Internet").

#### IV. STATEMENT OF FACTS

#### A. The LAN Patents

## 1. The '398 Patent

The '398 Patent is titled "Systems and Methods for Taking Action with respect to One

Network-Connected Device Based on Activity on Another Device Connected to the Same Network." '398 Patent, at 1. The '398 Patent contains 44 claims, including six that are independent. *Id.* at 23:48–28:32. In response to Roku's Complaint, AlmondNet filed a counterclaim (Count III) alleging infringement of the '398 Patent but did not specify or chart any particular claim other than claim 13.<sup>4</sup> D.I. 12 at 14–16 (¶¶ 23–33); D.I. 12-6 (charting only claim 13).

Claim 13 of the '398 Patent recites the scope of the claimed invention as follows:<sup>5</sup>

- 13. A method implemented using a programmed hardware computer system, the method comprising:
- (a) based on first electronic profile data associated with an electronic identifier of a first device, automatically *causing*, with the computer system, *an action to be taken* with respect to a second device that is indicated at the time of the action by an electronic identifier electronically associated with the first device identifier;
- (b) wherein the electronic association between the first and second device identifiers is based on connection, before the action, of each of the first and second devices, independently of the other, to a common local area network, wherein the computer system is connected to the local area network through the Internet but is not in the local area network.

'398 Patent, claim 13. Thus, claim 13 only requires a single step—causing an action to be taken.

Claims 14–17 and 19–23 further limit claim 13, but only claims 14 and 25 add steps, including steps of receiving an identifier, generating and storing electronic indicia, and storing a tag or cookie. *Id.* at claims 14 and 25. Other dependent claims further limit: (i) how the first device is connected (claim 15, "only intermittently"); (ii) the electronic association, including how it is recognized and made (claims 16, 18–19, 23–24, 26); (iii) the common IP address (claim 17); (iv) the devices (claims 20–21); and (v) the action, specifically that the action is to direct a selected advertisement to the second device (claim 22). *Id.* at 25:4–50.

<sup>&</sup>lt;sup>4</sup> Prior to this suit, AlmondNet provided a claim chart alleging infringement of claims 13–17 and 19–26. D.I. 1 at 5 (¶ 40).

<sup>&</sup>lt;sup>5</sup> All emphasis added unless otherwise noted.

#### 2. The '878 Patent

The '878 Patent is titled "Targeted Television Advertising Based on Online Behavior." '878 Patent, at 1. The '878 Patent claims priority to the same April 17, 2007 application underlying the '398 Patent through a series of continuation and divisional applications. *Id.* at 1–2. Thus, the '878 and '398 Patents have the same specification. In Count IV of its Counterclaims, AlmondNet only specifically alleges that Roku infringed claim 1 of the '878 Patent. *See* D.I. 12, at 16–18 (¶¶ 34–44); D.I. 12-8 (charting only claim 1).6

Claim 1 of the '878 Patent is similar in scope to claim 1 of the '398 Patent but requires two steps instead of one—determining an association between devices and using that association to take an automatic action (as specified). '878 Patent, claim 1. Independent claims 13 and 22 respectively recite a computer system implementing the method of claim 1 and a data storage medium including instructions to perform the method. *Id.* at claims 13 and 22.

Dependent claims of the '878 Patent further limit: (i) the type of device (claims 2, 5, 14); (ii) the user profile information, including how collected and its composition (claims 3–4, 15–16); (iii) the action taken (claims 6–7, 17–18); and (iv) the device identifier(s) (claims 8, 10, 12, 19, 21). *Id.* at 24:63–28:33. Further, dependent claim 9 adds a step of automatically storing a cookie. *Id.* at claim 9. Dependent claims 11, 20, and 23 add multiple limitations directed at the device, the user profile information, and the action. *Id.* at claims 11, 20, and 23.

# 3. The Specification of the LAN Patents

The named inventor of the LAN Patents merely used already-existing identifiers, systems, and devices to implement his idea to take an action based on an association between devices based

<sup>&</sup>lt;sup>6</sup> Prior to this suit, AlmondNet sent Roku a claim chart alleging infringement of claims 1–23 of the '878 Patent. D.I. 1 at 5 (¶ 40).

on connection to the same local area network ("LAN") and/or behavioral information about users of those devices. For example, IP addresses, including dynamically assigned IP addresses, and device identifiers (*e.g.*, MAC addresses) were known. '398 Patent, 4:1–41; 9:42–59; 15:4–8.<sup>7</sup> It was also known that multiple devices that connect to the same LAN may present the same common IP address. *Id.* at 9:42–45. In addition, there were known systems that used behavioral and demographic information to target advertisements to users of a device (such as a set-top box or DVR) based on knowledge of their online activity. *Id.* at 4:42–5:5; 6:51–7:12; 7:24–51; *see also id.* at 20:54–56 ("Any suitable procedures for transmitting the targeted television advertisement to the online user's STB can be employed").

# **B.** The Set-Top Box Patents

#### 1. The '164 Patent

The '164 Patent is titled "Targeted Online Advertisements Based on Viewing or Interacting With Television Advertisements '164 Patent, at 1. The '164 Patent contains 29 claims, of which three are independent. *Id.* at 24:43–29:32. In response to Roku's Complaint, AlmondNet filed a counterclaim (Count V) alleging infringement of the '164 Patent but only referred to and charted independent claim 1. D.I. 12, at 18–21 (¶¶ 45–55); D.I. 12-10 (charting only claim 1).<sup>8</sup>

Claim 1 of the '164 Patent recites the scope of the claimed invention as follows:

- 1. A method implemented using a programmed hardware computer system coupled to the Internet, the method comprising:
- (a) with the computer system automatically <u>causing</u>, in response to online activity from a first online user interface device, <u>a first selected online advertisement to be</u> <u>directed to the first online user interface device</u>, which online user interface device corresponds, at a time the first selected online advertisement is directed, to a first online access identifier;

<sup>&</sup>lt;sup>7</sup> For simplicity, all references to the specification of the LAN Patents herein are made to the '398 Patent. However, Roku hereby incorporates by reference the same disclosures in the '878 Patent.

<sup>&</sup>lt;sup>8</sup> Prior to suit, AlmondNet alleged that Roku infringed claims 1–3 and 6–14. D.I. 1 at 5 (¶ 40).

- (b) wherein the first selected online advertisement is selected based on information from a first user profile, which first user profile references or includes a first settop box identifier that the computer system has electronically associated with the first online access identifier;
- (c) wherein the information in part (b) is derived at least in part from automatically collected first data related to user behavior with respect to at least one television advertisement delivered to a set-top box, which set-top box corresponds, at a time of that user behavior, to the first set-top box identifier; and
- (d) wherein the first set-top box identifier and the first online access identifier are associated without using personally identifiable information pertaining to either a user of the first online user interface device or a user of the set-top box that corresponds to the first set-top box identifier, based on automatically recognizing that the online user interface device corresponding to the first online access identifier and the set-top box corresponding to the first set-top box identifier are connected, independently of each other, to a common local area network.

'164 Patent, claim 1. Claim 1 therefore only requires a single step—causing a selected advertisement to be directed at a specific device.

Dependent claims 2, 6–8, 12, and 14 add limitations regarding how the data is collected and used. *Id.* at 25:9–26:29. Dependent claim 3 adds limitations regarding a second device and a second selected online advertisement. *Id.* at 25:13–49. And, dependent claims 9–11 and 13 specify limitations regarding identifiers to be used in the claimed method. *Id.* at 26:1–12, 20–26.

#### 2. The '069 and '198 Patents

The '069 and '198 Patents are both titled "Systems and Methods for Dealing with Online Activity Based on Delivery of a Television Advertisement," and both claim priority to the '164 Patent. '069 Patent, at 1; '198 Patent, at 1. Thus, the '164, '069, and '198 Patents share a common specification. AlmondNet only specifically referenced and charted claim 1 of each of the '069 and '198 Patents in its Counterclaims. *See* D.I. 12, at 21–23 (Count VI ('198 Patent), ¶¶ 56–66); 28–30 (Count IX ('069 Patent), ¶¶ 89–99).

<sup>&</sup>lt;sup>9</sup> Prior to this suit AlmondNet sent Roku claim charts alleging infringement of claims 1, 3–5, and 8–17 of both the '069 and '198 Patents. D.I. 1 at 5 (¶ 40).

In addition to a similar "causing" step to that required in claim 1 of the '164 Patent, claim 1 of each of the '069 and '198 Patents requires the claimed computer or computer system to receive a notification that includes or references a set-top box identifier and results from an advertisement presented to the set-top box. '069 Patent, claim 1; '198 Patent, claim 1. Claim 1 of the '069 Patent is nearly identical to claim 1 of the '198 Patent except for the substitution of "computer system" for "computer" in the '198 Patent and the additional limitation in claim 1 of the '069 Patent that the association between identifiers occurs as a result of both devices being connected to the same LAN. '069 Patent, claim 1; '198 Patent, claim 1.

Dependent claims 3–5 and 8–17 of the '069 and '198 Patents contain nearly identical limitations regarding: (i) a second device (claim 3); (ii) the action to be taken (claims 4–5); (iii) the composition of data or a database (claims 8–10, 15, 17); and (iv) identifiers (claims 11–14, 16). '069 Patent, 25:12–45, 25:54–26:27; '198 Patent, 25:40–67, 26:10–49.

# 3. The Specification of the Set-Top Box Patents

The named inventors of the Set-Top Box Patents used existing computer, networking, and set-top box equipment to implement their idea of associating an online device with a set-top box to target advertisements. *See*, *e.g.*, '164 Patent, Abstract.<sup>10</sup> For example, in the Background section, the Set-Top Box Patents discuss set-top boxes and their identifiers (whether static or in the case of a set-top box IP address, dynamic). '164 Patent, 1:42–2:7. The specification defines "online user interface device" to mean "any user interface device used to access a remote network such as the Internet, including but not limited to a cell phone or mobile handset, a personal digital assistant (PDA), or a networked computer . . ." and "online access device" to mean "any device used to connect an online user interface device to a remote network such as the Internet, including but not

<sup>&</sup>lt;sup>10</sup> Citations are made herein to the '164 Patent with respect to the specification of the Set-Top Box Patents. Roku hereby incorporates by reference the same disclosures in the '069 and '198 Patents.

limited to a modem, a wired or wireless router, a wireless access point, a wired network adapter . .." thus admitting that the equipment contemplated by the claimed invention was known and conventional prior to the alleged invention. *Id.* at 2:65–3:10; *see also id.* at 3:11–58 (discussing IP addresses, routers, LANs, modems, and cable modems). As further background, the Set-Top Box Patents discuss then-current methods of targeted advertising, including the use of shopper club cards and the use of cookies to monitor a user's online activities. *Id.* at 8:16–45.

#### V. ARGUMENT

# A. Abstract Ideas, Without More, Are Not Eligible For Patenting

When patent claims lack patent-eligible subject matter, a district court may grant a motion to dismiss for failure to state a claim under Fed. R. Civ. P. 12(b)(6). See, e.g., In re TLI Commc'ns, 823 F.3d 607, 609 (Fed. Cir. 2016) (affirming the district court's dismissal where the claims concerned "no more than the abstract idea of classifying and storing digital images in an organized manner"). While the scope of subject matter eligible for patenting under 35 U.S.C. § 101 is broad, abstract ideas, mental processes, and natural phenomena are not patent-eligible because they are "the basic tools of scientific and technological work." Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 71 (2012) (quoting Gottschalk v. Benson, 409 U.S. 63, 67 (1972)).

To apply the abstract idea exception to patent eligibility, courts employ a two-step analysis:

- (1) determine whether the claims at issue are directed to a patent-ineligible concept; and
- (2) if so, determine whether the claim has an "inventive concept"—"an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself."

Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 217–218 (2014) (quoting Mayo, 566 U.S. at 72, 77–79). The Federal Circuit has repeatedly held that targeted advertising claims do not meet patent

<sup>&</sup>lt;sup>11</sup> The '398, '164, and '069 Patents issued before the Supreme Court's decision in *Alice*.

eligibility requirements under the *Alice* framework. *See* Section III *supra* (providing cases).

Further, the Federal Circuit's recent decision in *PersonalWeb Technologies LLC v. Google* LLC is instructive. Nos. 2020-1543, 2020-1553, 2020-1554, 2021 WL 3556889 (Fed. Cir. Aug. 12, 2021). In that case, the Federal Circuit affirmed the Northern District of California's judgment on the pleadings that patent claims relating to "data-processing systems that assign each data item a substantially unique name that depends on the item's content—a content-based identifier" were invalid as covering patent-ineligible subject matter under § 101. Id. at \*1. The patents were directed at a three-step process: "(1) using a content-based identifier generated from a 'hash or message digest function,' (2) comparing that content-based identifier against something else, [that is,] another content-based identifier or a request for data; and (3) providing access to, denying access to, or deleting data." Id. at \*3 (citations omitted). The Federal Circuit held that each of the three steps reflected a concept it had already described as abstract and rejected Personal Web's argument that they were not abstract because they claimed a new way of locating and distributing data in a computer network that provided efficiency benefits. Id. at \*6. Specifically, the Federal Circuit noted that the "asserted efficiency improvements are not different in kind from those that would accrue in the library analogue—for example, using content-based identifiers to purge duplicate books." Id.

# B. The Asserted Claims Of The LAN Patents Lack Patent-Eligible Subject Matter<sup>12</sup>

1. Claim 13 of the '398 Patent is directed to the abstract idea of causing an action based on associating two devices as using the same LAN

Claim 13 of the '398 Patent requires the single active step of causing an action with respect

<sup>&</sup>lt;sup>12</sup> In this Brief, Roku addresses the patent ineligibility of claims of the Targeted Advertising Patents by patent family but recognizes that the claims are all generally directed to the same abstract idea of targeted advertising and could be treated the same under the *Alice* framework. *See* Section II *supra* (discussing small variations between claims of the patents).

to a second device (such as delivering an advertisement) based on profile data associated with a first device and knowing that the two devices had been connected to the same LAN (and can thus be associated with the same person). '398 Patent, claim 13. Claim 13 is therefore directed to the abstract idea of causing an action based on an association between identifiers for two devices and information related to a first device. See PersonalWeb, 2021 WL 3556889, at \*\*4–5 (holding that claims directed to use of identifiers to control access to data or retrieve and deliver copies of data items were abstract). Such a claim is analogous to the long-standing practice of delivering advertisements for a local business to televisions based on their location. <sup>13</sup> Indeed, at its core, claim 13 is nothing more than using information to decide whether to take an action. The Federal Circuit has repeatedly held that such claims lack patent-eligible subject matter. See, e.g., id.; SAP America Inc. v. InvestPic, LLC, 898 F.3d 1161, 1168 (Fed. Cir. 2018) ("As many cases make clear, even if a process of collecting and analyzing information is 'limited to particular content' or a particular 'source,' that limitation does not make the collection and analysis other than abstract." (citations omitted)); Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1313 (Fed. Cir. 2016) (agreeing that "receiving email (and other data file) identifiers, characterizing e-mail based on the identifiers, and communicating the characterization" is an abstract idea); Secured Mail Sols., LLC v, Universal Wilde, Inc., 873 F.3d 905, 910 (Fed. Cir. 2017) ("The fact that an identifier can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract."); Free Stream, 996 F.3d at 1365 (finding targeted advertising claims abstract).

# 2. Claim 13 of the '398 Patent lacks any inventive concept that could transform the abstract idea into an eligible application

As detailed above, claim 13 of the '398 Patent directed to an abstract idea. And, there is

<sup>&</sup>lt;sup>13</sup> The specification of the LAN Patents specifically includes a user's location such as "city, state, or country of residence" within the definition of non-personally identifiable information that could be part of profile data used in causing the action. '398 Patent, 6:22–31; 7:66–8:11.

nothing in the claim that transforms that idea into a patent-eligible application. Other than implementing the idea of associating two devices and causing an action with respect to one device based on profile data related to the other device, claim 13 references conventional (and generic) equipment and systems such as a computer system, first and second devices, the Internet, and a LAN. '398 Patent, claim 13; see Free Stream, 996 F.3d at 1366 (holding that use of "generic computing components—e.g., 'servers'—arranged in a conventional manner" in targeted advertising claims do "not transform the claim into something other than the abstract idea"); Secured Mail, 873 F.3d at 911–12 (no transformation where the claim language did "not provide any specific showing of what is inventive about the identifier or about the technology used to generate and process it"); see also Elec. Power Group, LLC v. Alstom S.A., 830 F.3d 1350, 1355 (Fed. Cir. 2016) (conventional technology for manipulating information is not transformative). Moreover, even the single claimed affirmative step of "causing an action" is generic—the action itself is not specified in claim 13. '398 Patent, claim 13. While the claim does specify an Internet environment, without more, that is not enough to meet the requirements of patent eligibility. Ultramercial, 772 F.3d at 716.

# 3. Claim 13 of the '398 Patent is representative of the claims of the LAN Patents

With respect to the LAN Patents, currently at issue in this case are claims 13–17 and 19–26 of the '398 Patent and claims 1–23 of the '878 Patent. <sup>14</sup> See Sections IV.A.1 and 2 supra (noting the claims of the LAN Patents at issue). Claim 13 of the '398 Patent is the only independent claim at issue for that patent and the independent claims of the '878 Patent are substantially similar to

<sup>&</sup>lt;sup>14</sup> To the extent that AlmondNet asserts that Roku infringes any other currently unspecified claim of the LAN Patents, such claim would also lack patent-ineligible subject matter because claim 13 is representative of all claims of the LAN Patents. Roku further reserves the right to address any such newly asserted claim in its reply.

claim 13. Specifically, claim 1 of the '878 Patent contains many of the same limitations but requires two related active steps instead of one—determining an association between device identifiers and using that association and user profile information to take an action. '878 Patent, claim 1. Claims 13 and 22 of the '878 Patent merely rewrite the claim 1 method into a system claim (claim 13) and a data storage medium claim (claim 22). '878 Patent, claim 13 and claim 22. Thus, the independent claims of the LAN Patents are all directed to the same abstract idea of targeted advertising based on an association between identifiers for two devices, and therefore it is appropriate to treat claim 13 of the '398 Patent as representative.

Even if the Court looks to the eligibility of the dependent claims at issue separately, none impart patent eligibility. Dependent claims 14 and 25 of the '398 Patent merely add limitations for receiving, generating, and storing information (*i.e.*, device identifier, electronic indicia of an association between devices, and tags or cookies), which do not add an inventive concept to the claims. '398 Patent, claim 14 (receiving device identifier and generating and storing electronic indicia) and claim 25 (storing one or more tags or cookies in memory); *see Elec. Power*, 830 F.3d at 1353 (Federal Circuit has treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas).

Moreover, the limitation in claim 15 of the '398 Patent that the first device is connected to a LAN "only intermittently" does not add an inventive concept because it merely specifies a timing condition known to previously exist—*i.e.*, not all devices are always connected to a particular LAN. '398 Patent, claim 15. *See Elec. Power*, 830 F.3d at 1351 (holding that claims drawn to the "collection, analysis, and display of available information in a particular field . . . without limiting them to technical means for performing the functions" thus define "a desirable information-based result and are not limited to inventive means of achieving the result").

Nor do limitations directed at information enabling the claimed electronic association or specifying identifiers—claims 16, 18–19, 23, 24, and 26 of the '398 Patent and claims 8, 10, 12, 19, and 21 of the '878 Patent—add an inventive concept. See '398 Patent, claim 16 (electronic association based on common IP address), claim 18 (electronic indicia of the association includes indicia regarding the common IP address), claim 19 (first device identifier is an IP address and the second device identifier is recognized using a database with second device identifiers, IP addresses, and dates and times), claim 23 (electronic indicia of the electronic association comprise electronic record(s) in a database), claim 24 (electronic indicia comprise tags or cookies), and claim 26 (electronic indicia contain no personally-identifiable information ("PII")); '878 Patent, claim 8 (device identifier is a cookie), claim 10 (device identifiers include no PII), claim 12 (same as 10); claim 19 (programmed to perform method even if device identifiers do not contain PII), and claim 21 (same as 19). As evident from those dependent claims, the limitations merely concern the organization or use of information but not in any tangible way that improves the computer system itself. See, e.g., PersonalWeb, 2021 WL 3556889, at \*4 (use of identifiers is abstract). In addition, the types of information specified (e.g., IP addresses, cookies, electronic records in a database) were conventional at the time. '398 Patent, 4:1–41 (discussing standardized protocols for dynamic IP addresses in the Background section); 6:32-46 (discussing cookies in the Background section); 9:42-59 (discussing how third party providers assign online access IP addresses); 15:4–13 (explaining that device identifiers could be almost anything including a device MAC address and recognizing that online servers used "cookies" prior to the invention).

With respect to the limitation added in claim 17 of the '398 Patent specifying a particular common IP address, the specification readily admits that assigning a common IP address, such as the IP address of the modem used with a LAN, was conventional at the time of the alleged

invention. '398 Patent, 4:1–41 (discussing standardized protocols for assigning dynamic IP addresses in the Background section); 13:25–27 (acknowledging it is the ISP, not the computer system performing the claimed method, that assigns the common IP address), claim 17 (common IP address comprises IP address of modem or router by which devices are connected to a LAN).

Moreover, the narrowing of claim scope in dependent claims 20 and 21 of the '398 Patent and claims 2, 5, 11(i), 14, 20(i), and 23(i) of the '878 Patent to specific devices that were conventional hardware does not create patent-eligible subject matter. *See* '398 Patent, 1:39–63 (describing the current technology of set-top boxes), 2:47–60 (discussing types of online access devices in the Background section, including modems), claim 20 (first device is an online user interface device and second device is a television set-top box), claim 21 (first device is a mobile device connected only intermittently); '878 Patent, claim 2 (first device is mobile device connected only intermittently), claim 5 (first device is online user interface device and second device is a set-top box), claim 11(i) (same as 2), claim 14 (programmed to perform the method even when the mobile device is connected to the LAN only intermittently), claim 20(i) (same as 14), and claim 23(i) (same as 14). Those claims merely contemplate the use of such devices in their conventional manner. *See Elec. Power*, 830 F.3d at 1355 ("off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information" is not transformative).

Further, the limitation in claim 22 of the '398 Patent narrowing the claimed action to directing a selected advertisement to the second device does not impart patent eligibility because targeted advertising was a conventional activity as of the alleged "invention" and still abstract. '398 Patent, 6:51–7:12 (describing then current systems that targeted advertisements based on user/viewer/customer behavior); 7:24–35 (noting that prior art systems collected behavioral and

demographic (e.g., PII) information on users to target advertising across devices); claim 22 (the action comprises causing a selected advertisement to be directed to the second device based on profile data); see Bridge & Post, 778 Fed. Appx. at 887 (tailored marketing claims are abstract).

Nor do adding limitations to the dependent claims in the '878 Patent regarding how user profile information is collected or comprised—claims 3, 4, 11(ii), 11(iii), 15, 16, 20(iii), 20(iii), 23(ii), and 23(iii)—add any inventive concept. See '878 Patent, claim 3 (user profile information comprises behavioral data collected when first device not connected to LAN); claim 4 (behavioral data received as a result of redirection from a first site while not connected to LAN); claim 11(ii) (same as 3); claim 11(iii) (same as 4); claim 15 (same as 3); claim 16 (same as 4); claim 20(ii) (same as 3); claim 20(iii) (same as 4); claim 23(ii) (same as 3); claim 23(iii) (same as 4). Rather, those additional limitations specify the types of and timing of data collection. Collecting data is not a patent-eligible activity. Elec. Power, 830 F.3d at 1351 (holding claims drawn to the "collection, analysis, and display of available information in a particular field . . . without limiting them to technical means for performing the functions" define "a desirable information-based result and are not limited to inventive means of achieving the result" and thus fail § 101). Moreover, it was known and conventional at the time to collect behavioral and demographic information from users of online sites. See, e.g., '398 Patent, 6:51–7:12 (describing then-current systems that target advertisements based on user/viewer/customer behavior); 7:24–35 (noting that prior art systems collected behavioral and demographic (e.g., PII) information on users).

In addition, limitations in the claims of the '878 Patent —specifically, claims 6, 7, 11(iv), 17, 18, 20(iv) and 23(iv)—regarding the specific action to be taken, such as selecting and/or directing an advertisement, do not rescue the patent eligibility of those claims because targeted advertising was a conventional activity at the time of the alleged invention. *See* '398 Patent, 7:24—

52 (recognizing conventional cross-media ad-targeting systems); '878 Patent, claim 6 (action comprises selecting an action based on user profile information); claim 7 (action comprises directing a selected advertisement to the second device); claim 11(iv) (same as 6 and 7); claim 17 (same as 6); claim 18 (same as 7); claim 20(iv) (same as 6 and 7); claim 23(iv) (same as 6 and 7).

Finally, the added step in claim 9 of the '878 Patent of storing cookies was conventional at the time of the alleged invention. '398 Patent, 6:32–46 (discussing cookies in the Background section); 15:11–13 (recognizing that online servers place cookies on visitors' computers); claim 9 ("using the computer system, automatically storing, in a memory of the first device, the cookie").

For these reasons, Roku requests that the Court find that claims 13–17 and 19–26 of the '398 Patent and claims 1–23 of the '878 Patent fail to claim patent-eligible subject matter.

# C. Claims Of The Set-Top Box Patents Lack Patent-Eligible Subject Matter

1. Claim 1 of the '164 Patent is directed to the abstract idea of targeting an advertisement to one device based on user profile information that includes an association between a set-top box identifier and an online access identifier

Claim 1 of the '164 Patent is not meaningfully different from claim 13 of the '398 Patent for assessing eligibility under § 101. Namely, Claim 1 of the '164 Patent embodies the same concept as claim 13 of the '398 Patent (which as discussed is representative of the LAN Patents claims) but (i) instead of reciting an "causing . . . action to be taken" recites "causing . . . a first selected online advertisement to be directed to the first online user interface device" and (ii) instead of reciting an association between identifiers of two devices connected to the same LAN specifies that the association between a "set-top box identifier" and "online access identifier" occur based on those devices being connected to the same LAN. *Compare* '164 Patent, claim 1 with '398 Patent, claim 1. Those differences do not change that claim 1 of the '164 Patent is directed to the abstract idea of targeting an advertisement to one device based on user profile information (here,

an association between a set-top box identifier and an online access identifier). '164 Patent, claim 1; see PersonalWeb, 2021 WL 3556889, at \*\*4–5 (holding that claims directed to use of identifiers to control access to data or retrieve and deliver copies of data items were abstract). Thus, like claim 13 of the '398 Patent, claim 1 of the '164 Patent is analogous to conventional targeted advertising in which ads are directed at a user based on what the user is watching (e.g., a particular TV show on a particular day) and knowledge about what else is likely to interest the user—for example, an advertisement for a Hawaiian vacation being shown during an episode of Hawaii Five-O or a local ad for a sports store being shown during broadcast of a local college football game.

# 2. Claim 1 of the '164 Patent lacks any inventive concept

Nothing in claim 1 transforms that abstract idea into a patent-eligible application. The remainder of claim 1 of the '164 Patent merely recites generic and conventional equipment and systems, such as online user interface devices with online access identifiers, set-top boxes with set-top box identifiers, and LANs. '164 Patent, claim 1; *see also* Section IV.B.3 *supra* (citing the specification's admissions that such devices, identifiers, and LANs were known/conventional); *see*, *e.g.*, *Free Stream*, 996 F.3d at 1366 (generic computing components do not transform).

# 3. Claim 1 of the '164 Patent is representative of the claims of the Set-Top Box Patents

All of the independent claims of the Set-Top Box Patents charted in AlmondNet's Counterclaims similarly reference the association of a set-top box identifier and an online access identifier and using that information to cause an action, such as sending a selected advertisement, to be taken. '164 Patent, claim 1; '069 Patent, claim 1; '198 Patent, claim 1. Claim 1 of the '164 Patent is therefore representative of the claims of the Set-Top Box Patents. *See* Sections IV.B.1 and 2 *supra* (discussing the asserted claims).

Even if the Court looks to each dependent claim at issue—claims 2–3 and 6–14 of the '164

Patent and claims 3-5 and 8-17 of each of the '069 and '198 Patents—none add limitations sufficient to rescue patent eligibility. Dependent claims 2, 6–8, 12, and 14 of the '164 Patent and claims 8-10, 15, and 17 of each of the '069 and '198 Patents add limitations to the data collected and used to take the single claimed step, which is not sufficient. '164 Patent, claim 2 (linking an advertisement in a database to the set-top box identifier), claim 6 (association recorded in a database), claim 7 (data includes data from user interaction), claim 8 (data includes data from user commands), claim 12 (information derived in part from data related to user behavior), and claim 14 (act based on information concerning online activity); '069 Patent, claim 8 (association recorded in database), claim 9 (notification includes data collected from user interaction), claim 10 (notification includes data from user commands), claim 15 (tag or cookie allows access to profile data related to user behavior), and claim 17 (action further based on information concerning previous online activity); '198 Patent, claim 8 (association recorded in database), claim 9 (notification includes data collected from user interaction), claim 10 (notification includes data from user commands), claim 15 (tag or cookie allows access to profile data related to user behavior), and claim 17 (action further based on information concerning previous online activity); see Elec. Power, 830 F.3d at 1353 (collecting information, including when limited to particular content, is within the realm of abstract ideas); see also Digitech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1349 (Fed. Cir. 2014) (rejecting Digitech's argument that a device profile was subject matter eligible).

Dependent claim 3 of each of the Set-Top Box Patents adds limitations regarding a second device, which do not transform the nature of the claim. '164 Patent, claim 3 (adding limitations regarding a second online user interface device); '069 Patent, claim 3 (adding limitations regarding a second set-top box); '198 Patent, claim 3 (adding limitations regarding a second set-top box).

And dependent claims 9–11 and 13 of the '164 Patent and claims 11–14 and 16 of each of the '069 and '198 Patents merely specify additional limitations regarding identifiers to be used in the claimed method. '164 Patent, claim 9 (identifiers include cookies or tags), claim 10 (identifiers include IP addresses), claim 11 (information includes profile identifier), and claim 13 (identifiers include IP addresses); '069 Patent, claim 11 (identifier includes tag or cookie), claim 12 (set-top box IP address), claim 13 (online access IP address), claim 14 (identifier includes tag or cookie), and claim 16 (identifiers include IP addresses); '198 Patent, claim 11 (identifier includes tag or cookie), claim 12 (set-top box IP address), claim 13 (online access IP address), claim 14 (identifier includes tag or cookie), and claim 16 (identifiers include IP addresses); see PersonalWeb, 2021 WL 3556889, at \*4 (use of identifiers is abstract).

Finally, claims 4 and 5 of the '069 and '198 Patents narrow the specific action to be taken to causing a selected advertisement to be directed or to causing recording that online activity occurred, which does not transform the nature of those claims from an abstract idea into a patent-eligible application. '069 patent, claims 4–5; '198 Patent, claims 4–5.

For these reasons, Roku requests that the Court find that claims 1–3 and 6–14 of the '164 Patent, claims 1, 3–5, and 8–17 of the '069 Patent, and claims 1, 3–5, and 8–17 of the '198 Patent fail to claim patent-eligible subject matter.

### VI. CONCLUSION

Accordingly, Roku requests that the Court find that the claims of the Targeted Advertising Patents recite abstract ideas with no inventive concept and thus are ineligible for patent protection under 35 U.S.C. § 101, and that therefore, the Court dismiss Counts III, IV, V, VI, and IX of AlmondNet's Counterclaims.

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# **CERTIFICATE OF SERVICE**

I hereby certify that on October 1, 2021, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on October 1, 2021, upon the following in the manner indicated:

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